



Table 4.4-1: Imager Pixel Parameters

General	Cloud layer 1 (single-level cloud properties or, if 2 layers, the lower cloud)	Cloud layer 2 (if two cloud layers, the higher cloud)
<ol style="list-style-type: none"> 1. Number of cloud layers 2. Imager viewing zenith angle 3. Imager relative azimuth angle 4. Colatitude 5. Longitude 6. Day/night flag 7. Sunlint potential 8. Bidirectional model 9. Imager radiance 0.6 μm 10. Imager radiance 3.7 μm 11. Imager radiance 11 μm 12. Skin temperature 13. Precipitable water 14. Air mass type 15. Surface snow/ice 16. Surface elevation 17. Surface land/water % 18. SARB scene types 19. ERBE scene types 20. Aerosol optical depth 	<ol style="list-style-type: none"> 21. Cloud fraction (0-1.0) 22. Visible optical depth 23. Infrared emissivity 24. Water path 25. Top pressure 26. Effective* pressure 27. Effective temperature 28. Effective height 29. Bottom pressure 30. Water droplet eff. radius 31. Ice crystal diameter 32. Particle phase (0-ice or 1-water) 33. Vertical Aspect ratio 	<ol style="list-style-type: none"> 34. Cloud fraction (0-1.0) 35. Visible optical depth 36. Infrared emissivity 37. Water path 38. Top pressure 39. Effective pressure 40. Effective temperature 41. Effective height 42. Bottom pressure 43. Water droplet eff. radius 44. Ice crystal diameter 45. Particle phase (0-ice or 1-water) 46. Vertical Aspect ratio

Version 1 Configuration for Subsystem 4

Cloud algorithms:

Cloud detection: Trepte/Baum, Berendes/Welch, Heck/Minnis

Cloud classification: Tovinkere/Baum

Aerosol optical depth: Stowe

Cloud microphysical and optical properties: Heck/Minnis, Platnick

Surface properties: Rutan/Charlock, Kratz

Meteorological analyses using MOA: Titlow/Baum

*No nighttime algorithms

*All clouds are treated as single-layer clouds

Convolution algorithm:

McKinley/Green cookie-cutter algorithm, ERBE point spread function

Inversion algorithm:

NOAA9 Spectral Correction Coefficients used

Window (WN) Channel filtered radiance estimated using 1/3 of LW filtered radiance from S-8

SW and LW unfiltered radiance data estimated without using a Window Channel component

ERBE ADMs used in TOA estimates

Surface Flux algorithms (SSF parameters):

Model A SW Surface Flux - Li-Leighton algorithm (NET)

Li-Garand (Downward)

Model B SW Surface Flux - No algorithms chosen (place holders on SSF)

Model A LW Surface Flux - Inamdar-Ramanathan algorithm

Model B LW Surface Flux - Gupta algorithm

